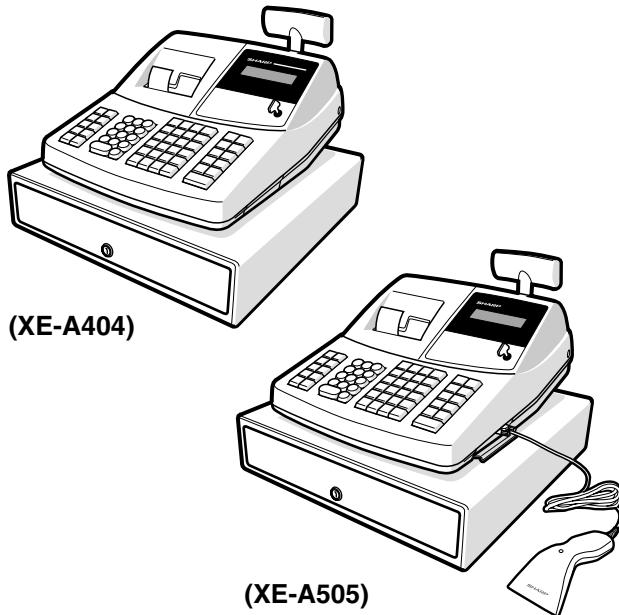


SHARP PROGRAMMING MANUAL

CODE : 00ZXEA404UPME



LEAD-FREE SOLDER MODEL

ELECTRONIC CASH REGISTER

XE-A404
MODEL XE-A505

(For "U" version)

CONTENTS

CHAPTER 1. MASTER RESET AND PROGRAM RESET 1 - 1

CHAPTER 2. PROGRAM (PGM2/PGM1) MODE 2 - 1

CHAPTER 3. OP X/Z, X1/Z1, X2/Z2 MODE 3 - 1

Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

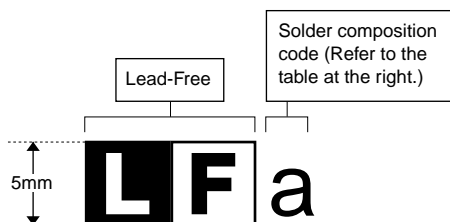
SHARP CORPORATION

This document has been published to be used
for after sales service only.
The contents are subject to change without notice.

■ LEAD-FREE SOLDER

The PWB's of this model employs lead-free solder. The "LF" marks indicated on the PWB's and the Service Manual mean "Lead-Free" solder. The alphabet following the LF mark shows the kind of lead-free solder.

Example:



<Solder composition code of lead-free solder>

Solder composition	Solder composition code
Sn-Ag-Cu	a
Sn-Ag-Bi Sn-Ag-Bi-Cu	b
Sn-Zn-Bi	z
Sn-In-Ag-Bi	i
Sn-Cu-Ni	n
Sn-Ag-Sb	s
Bi-Sn-Ag-P Bi-Sn-Ag	p

(1) NOTE FOR THE USE OF LEAD-FREE SOLDER THREAD

When repairing a lead-free solder PWB, use lead-free solder thread. Never use conventional lead solder thread, which may cause a breakdown or an accident.

Since the melting point of lead-free solder thread is about 40°C higher than that of conventional lead solder thread, the use of the exclusive-use soldering iron is recommendable.

(2) NOTE FOR SOLDERING WORK

Since the melting point of lead-free solder is about 220°C, which is about 40°C higher than that of conventional lead solder, and its soldering capacity is inferior to conventional one, it is apt to keep the soldering iron in contact with the PWB for longer time. This may cause land separation or may exceed the heat-resistive temperature of components. Use enough care to separate the soldering iron from the PWB when completion of soldering is confirmed.

Since lead-free solder includes a greater quantity of tin, the iron tip may corrode easily. Turn ON/OFF the soldering iron power frequently.

If different-kind solder remains on the soldering iron tip, it is melted together with lead-free solder. To avoid this, clean the soldering iron tip after completion of soldering work.

If the soldering iron tip is discolored black during soldering work, clean and file the tip with steel wool or a fine filer.

CHAPTER 1. MASTER RESET AND PROGRAM RESET

1. MASTER RESETTING

Master resetting clears the entire memory and resumes initial values.

Master resetting can be accomplished by using the following procedure:

Procedure :

- 1) Unplug the AC cord from the wall outlet.
- 2) Set the mode switch to the PGM position.
- 3) While holding down both the JOURNAL FEED key and [CL] key, plug in the AC cord to the wall outlet.

2. PROGRAM RESETTING (INITIALIZATION)

This resetting resumes the initial program without clearing memory.

This resetting can be operated at below sequence in PGM mode.

Procedure:

- 1) Unplug the AC cord from the wall outlet.
- 2) Set the mode switch to the PGM position.
- 3) While holding down both JOURNAL FEED key and RECEIPT FEED key, plug in the AC cord to the wall outlet.

CHAPTER 2. PROGRAM MODE

1. READING STORED PROGRAMS

The machine allows you to read every program stored in the PGM mode.

■ Key sequence for reading stored program

Report name	Key sequence
Programming report 1	CA/AT/NS
Programming report 2	2 → CA/AT/NS
[Auto] key programming report	1 → CA/AT/NS
Printer density report	3 → CA/AT/NS
PLU programming report (*1)	Start no. → @/FOR → End no. → PLU/UPC (XE-A505) PLU/SUB (XE-A404)

(*1) PLU or UPC code range can be specified by entering the start and end numbers according to the following procedure.

When specifying a single PLU code or UPC code, the start number has only to be entered.

■ SAMPLE PRINTOUTS

1. Programming report 1

HEADER			
11/01/2003 12:34PM	01	DATE /TIME /CLERK NO.	
123456#1234	BETTY	MACHINE NO. /CC-NO. / CLERK NAME	
PGM		MODE TITLE	
D01	T1234 0073	DEPT CODE /TAXABLE/ PROGRAM (*1)	
DPET.01xxxxxx		TEXT	
G0 C0	-1234.56	DEPT GROUP /COMMISSION GROUP /PRICE WITH SIGN	
D02	T1234 0073		
DPET.02			
G0 C0	-1234.56		
:			
:			
D99	T1234 0071	(MAX department is decided by PGM selection.)	
DPT.99			
G0 C0	0.00	FUNCTION NO. /TEXT /PROGRAM (*2)	
F01 (-) xx	007	AMOUNT WITH SIGN	
	-1000.00	FUNCTION NO. /TEXT /PROGRAM (*2)	
F02 % 1xxxx	000	HALO WITHOUT SIGN/ RATE WITH SIGN	
L100.00% T1234	-10.00%		
F03 % 2xxxx	000		
L100.00% T1234	-100.00%		
F04 NET1		FUNCTION NO. /TEXT	
F05 TAX1 ST			
F06 GRS TAX1			
F07 RFD TAX1			
F08 TAX1			
F09 TX1 EXPT			
:			
:			
F25 GRS MTAX			
F26 RFD MTAX			
F27 M-TAX	7	FUNCTION NO. /TEXT /HALO	
:			
:			
F37 ***RAxxx	9	FUNCTION NO. /TEXT /HALO	
F38 ***POxxx	9		
F39 TRANS CT			
F40 NET3			

F41 CASH	008	FUNCTION NO. /TEXT /PROGRAM (*3)
F42 CHECKxxx	008	
F43 CHRAGExx	008	
F44 CHARGE-		
F45 CHARGE2	008	FUNCTION NO. /TEXT /PROGRAM (*4) CURRENCY SYMBOL /RATE
F46 CHARGE2-		
F47 CONV 1	00	
AAAA	9999.9999	
F48 CONV 2		FUNCTION NO. /TEXT
F49 ****CID		
F50 CA+CH ID		
F51 CHK /CG		
F52 COM.SAL1	10.00%	FUNCTION NO. /TEXT/ COMMISSION RATE
F53 COM.SAL2	100.00%	
F54 NON COM.		
:		
F76 COPY		FUNCTION NO. /TEXT
F77 GROUP01		
:		
F85 GROUP09		
F86 DUE		FUNCTION NO. /TEXT
F87 TAX ST		
SHARP PRESENTS THE BEST ECR SHARP IS THE BEST		
		LOGO TEXT (According to programmed LOGO FORMAT)
#5	00000000	(JOB# 5) FUNCTION SELECT
#6	00000011	(JOB# 6) PRINT FUNCTION
#7	00000000	(JOB# 7) RECEIPT PRINT FORMAT
#10	0000	(JOB#10) POWER SAVING PROGRAMMING
#11	0	(JOB#11) LOGO FORMAT
#15	00000000	(JOB#15) FUNCTION SELECT2
#16	00000000	(JOB#16) UPC /EAN FUNCTION
#20	9999999.99	(JOB#20) SENTINEL (CID HALO)
#35	007	(JOB#35) ONLINE Timeout time
#50	50	(JOB#50) THERMAL PRINTER DENSITY
T1	10.0000%	CONTROL
	/ 1.00	TAX1 RATE
	1 0.11	CYCLE
	2 0.23	TAX /BREAK POINT AMOUNT
	3 0.57	
	4 0.78	
	5 1.11	
T2	4.0000%	TAX2 RATE
	0.10	LOWER TAX LIMIT
T3	5.0000%	TAX3
	0.20	
T4	-----	TAX4 ("-----": INHIBIT)
C#01	CLERK.01	Clerk No. /Clerk name
C#02	CLERK.02	: VARIOUS PROGRAM Refer to the programming section about the data of each JOB.
:	:	
C#40	CLERK.40	

(*1) DEPT PROGRAM : ABCD

A: TYPE	A
NORMAL	0
BOTTLE RETURN	1

B: REGISTRATION TYPE	B
NORMAL	0
SICS	1

C: LIMITATION DIGITS (*2) = 0 to 7

D: AMOUNT ENTRY TYPE	D
Inhibited	0
Open	1
Preset	2
Open and Preset	3

(*2) (-)/[%] PROGRAM : ABC

A: ENTRY FOR ITEM	A
ENABLE	0
DISABLE	1

B: ENTRY FOR SBT	B
ENABLE	0
DISABLE	1

C: LIMITATION DIGITS (for (-) key) = 0 to 7 (0 FIXED for [%n])

(*3) MEDIA PROGRAM : ABC

A: Footer print on Receipt	A
No	0
Yes	1

B: Entry of amount tenderd	B
Non compulsory (Cash, check), Inhibit (Credit)	0
Compulsory	1

C: LIMITATION DIGITS (0=INHIBIT) = 0 to 8

(*4) CONVERSION PROGRAM : AB

A: OPEN RATE ENTRY	A
ENABLE	0
DISABLE	1

B: PRESET RATE ENTRY	B
ENABLE	0
DISABLE	1

2. Programming report 2

HEADER		
11/01/2003 12:34PM	01	DATE /TIME /CLERK NO.
123456#1234	BETTY	MACHINE NO. /CC-NO. / CLERK NAME
		MODE TITLE
PGM		
#61	00000000	(JOB#61) OTHERS1
#62	00000000	(JOB#62) OTHERS2
#63	00000000	(JOB#63) OTHERS3
#64	00000000	(JOB#64) OTHERS4
#65	00000000	(JOB#65) OTHERS5
#66	00000000	(JOB#66) OTHERS6
#67	00000000	(JOB#67) OTHERS7
#68	00000000	(JOB#68) OTHERS8
#69	00000000	(JOB#69) OTHERS9
#70	00000000	(JOB#70) OYTHERS10
#71		
GT2	\$0000000000.00	GT2
#72		
GT3	\$0000000000.00	GT3
#76	Z1 0000	GENERAL Z1 RESET COUNTER
#77	Z2 0000	GENERAL Z2 RESET COUNTER
#85	\$	DOMESTIC CURRENCY SYMBOL
#86	00	TRAINING CLERK
#87	TRAINING	TRAINING MODE TEXT
#88	0	LANGUAGE MODE
#95	99	(For the fixed messages) MAX NUBMER OF DEPT

: OTHERS PROGRAM

Refer to the programming section about the data of each JOB.

3. [Auto] key reading

HEADER		
11/01/2003 12:34PM	01	DATE /TIME /CLERK NO.
123456#1234	BETTY	MACHINE NO. /CC-NO. / CLERK NAME
		MODE TITLE
PGM		KEY TEXT
	1	
	0	
	0	
	0	
	CA/AT	

----- | DELETE (NO KEY)

4. Printer density report

HEADER		
11/01/2003 12:34PM	01	DATE /TIME /CLERK NO.
123456#1234	BETTY	MACHINE NO. /CC-NO. / CLERK NAME
		MODE TITLE
PGM		
#50	50	Thermal printer density Printing Sample (Light & Shade value between 10 to 90.)
10 : 0123456789AB		
20 : 0123456789AB		
30 : 0123456789AB		
40 : 0123456789AB		
50 : 0123456789AB		
60 : 0123456789AB		
70 : 0123456789AB		
80 : 0123456789AB		
90 : 0123456789AB		

5. PLU/UPC data report

HEADER			
11/01/2003 12:34PM	01	DATE /TIME /CLERK NO.	
123456#1234	BETTY__	MACHINE NO. /CC-NO. /CLERK NAME	
PGM			MODE TITLE
	0001-	START CODE (RANGE DATA)	
	999999	END CODE (RANGE DATA)	
P0001	(01)	PLU CODE /DEPT code	
PLU001xxxxxx	-1234.56	TEXT /PRICE WITH SIGN	
	C0 1	COMMISSION GR. /Type(*1)	
:			
:			
1234567890123#	(01)	UPC CODE /DEPT CODE	
1234567890123	-1234.56	TEXT /PRICE WITH SIGN	
	C0 1	COMMISSION GR. /Type(*1)	
:			
:			

NOTE :
The deleted PLU /UPC is not printed.

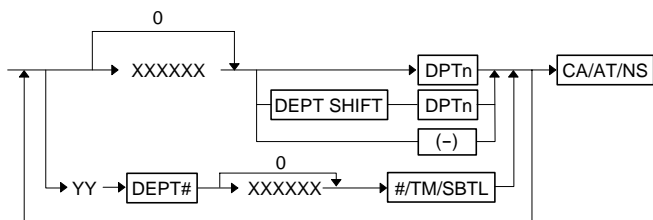
P0001	----	When PLU is deleted at the programming JOB.
1234567890123#	----	When PLU is deleted at the programming JOB.

(*1) PROGRAM : Y

Y:	PROGRAM	Y
	SUBDEPT	0
	PLU	1

2. USER PROGRAMMING

1) PRICE PROGRAMMING FOR [DEPT.] & (-) KEYS



YY: Department Code (01 to 99)

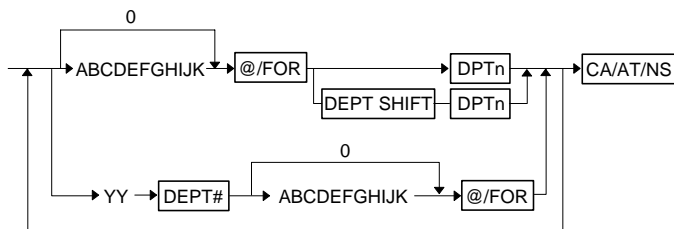
XXXXXX: Unit price (Max. 6digits)

If a price is set for a department which amount entry type is "INHIBIT" or "OPEN", its amount entry type is set as below automatically.

"PRESET" ← "INHIBIT"
"OPEN & PRESET" ← "OPEN"

MRS = 0

2) DEPT FUNCTION PROGRAMMING



YY: Department code (01 to 99)

A: TYPE	A
NORMAL	0
BOTTLE RETURN	1

B: Group = 0 to 9

C: Commission Group = 0 to 2

D: Taxable 4	A
No	0
Yes	1

E: Taxable 3	B
No	0
Yes	1

F: Taxable 2	C
No	0
Yes	1

G: Taxable 1	D
No	0
Yes	1

H: REGISTRATION TYPE	A
NORMAL	0
SICS	1

I: SIGN	B
+	0
-	1

J: LIMITATION DIGITS = 0 to 7

0 : OPEN PRICE REGISTRATION INHIBIT.

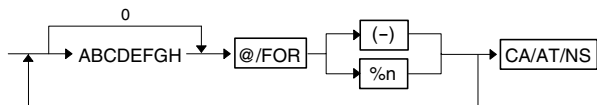
K: AMOUNT ENTRY TYPE	D
Inhibited	0
Open	1
Preset	2
Open & Preset	3

MRS = 0000000071

(NORMAL, NON GROUP, NON TAXABLE, NORMAL, SIGN (+), HALO = 7, OPEN)

(Dept01-10 : Taxable1 = Yes, Dept11 - 99 : Non Taxable)

3) (-) & [%] KEY FUNCTION PROGRAMMING



A:	Taxable 4	A
	No	0
	Yes	1

B:	Taxable 3	B
	No	0
	Yes	1

C:	Taxable 2	C
	No	0
	Yes	1

D:	Taxable 1	D
	No	0
	Yes	1

E:	SIGN	E
	+	0
	-	1

F:	ENTRY FOR ITEM	F
	ENABLE	0
	DISABLE	1

G:	ENTRY FOR SBTL	G
	ENABLE	0
	DISABLE	1

H: LIMITATION DIGITS (for (-) key) = 0 to 7

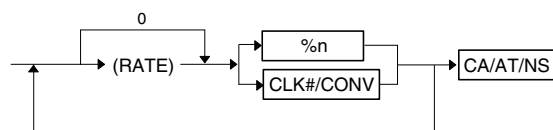
0 : • OPEN PRICE REGISTRATION INHIBIT (for (-) KEY).

• FIXED for [%n]

MRS = 00001007

(NON-TAXABLE, MINUS SIGN, ITEM&SBTL, HALO = 7)

4) RATE PROGRAMMING FOR [%] KEY AND CONVERSION KEY.



(RATE): XXX.XX: Rate for % (0.00 to 100.00)

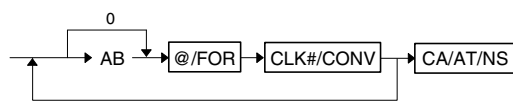
XXXX.XXXX: Rate for EXCHANGE (0.0000 to 9999.9999)

The DECIMAL POINT must be entered for setting the decimal digits.

MRS = 0.00 (%n)

0.0000 (CONVERSION)

5) PROGRAMMING FOR CONVERSION

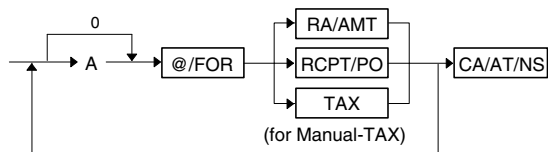


A:	OPEN RATE ENTRY	A
	ENABLE	0
	DISABLE	1

B:	PRESET RATE ENTRY	B
	ENABLE	0
	DISABLE	1

MRS = 00

6) PROGRAMMING FOR FUNCTION KEYS



A: LIMITATION DIGITS (0 = INHIBIT)

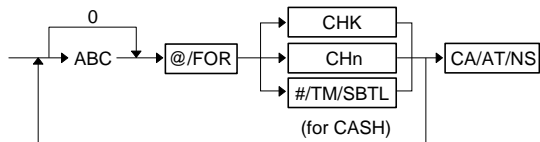
= 0 to 7 (for Manual TAX)

= 0 to 9 (for RA, PO)

MRS = 7 (Manual TAX), 9 (RA, PO)

7) PROGRAMMING FOR MEDIA KEYS

([#/ST] key is used for programming of CASH.)



A:	Footer print on Receipt	A
	No	0
	Yes	1

B:	Entry of amount tenderd	B
	Noncompulsory (Cash, Check)/ Inhibit (Credit)	0
	Compulsory	1

C: LIMITATION DIGITS (0 = INHIBIT) = 0 to 8

MRS = 008

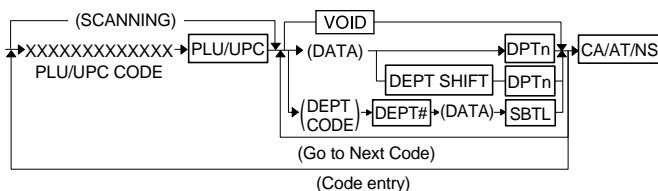
8) DATA PROGRAMMING FOR PLU/UPC

PLU/UPC are programmed by below key sequence.
The PLU code is increment automatically when one programming data of a PLU is set.
It is operated continuously until depressing the [CA/AT/NS] key.
The JOB is automatically finalized when a maximum PLU code is programmed.

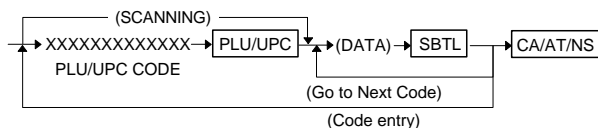
(Basic programming sequence)

Basic operation consists below of 2 kinds:

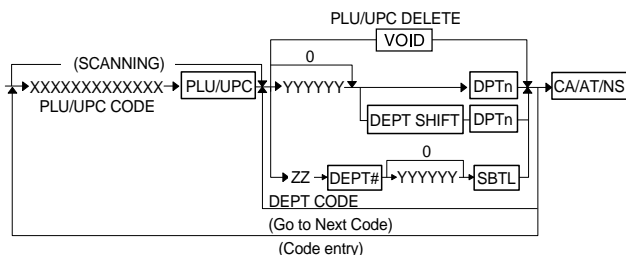
<Associate Dept & Price Entry>



<Parameter data Entry>



9) PROGRAMMING OF DEPARTMENTS TO BE ASSOCIATED WITH PRICE PRESET



XXXXXXXXXXXX: PLU CODE = Max. 4digits (1 t o 9999)
UPC (EAN) CODE = Max. 13digits (EAN13, EAN8, UPC-A, UPC-E)

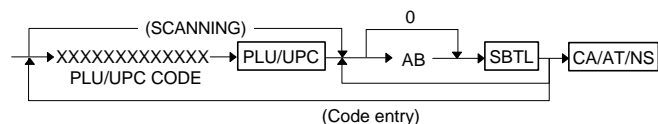
ZZ: DEPT CODE (1 to 99)

YYYYYY: UNIT PRICE (6 degits)

DELETE means to be set as a inhibited PLU in memory.
When it is assigned some DEPT for the inhibited (deleted) PLU, the PLU is set the MRS value except its price.

MRS = DEPT1, Price: 0 (Create: PLU001 to PLU0020)

10) PLU/UPC FUNCTION PROGRAMMING.



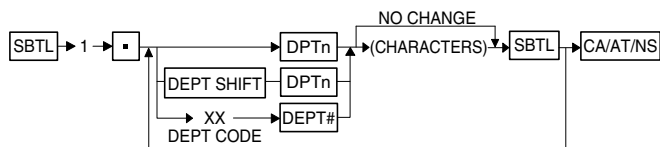
XXXXXXXXXXXX: PLU CODE = Max. 4digits (1 t o 9999)
UPC (EAN) CODE = Max. 13digits (EAN13, EAN8, UPC-A, UPC-E)

A: Commission Group = 0 to 2

B:	PLU/SUB DEPT	B
	SUBDEPT	0
	PLU	1

MRS = 01 (No Group, PLU type)

11) PROGRAMMING OF DEPARTMENT TEXT



XX: DEPT Code (1 to 99)

(CHATACTERS): CHARACTER (Max. 16 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.
THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

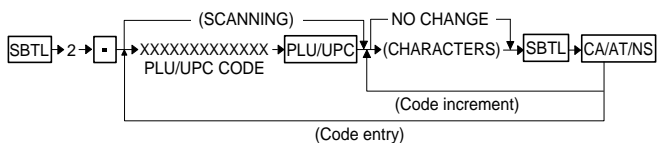
YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = DEPT. xx (xx: DEPT Code)

12) PROGRAMMING OF PLU/UPC TEXT



XXXXXXXXXXXX: PLU CODE = Max. 4digits (1 t o 9999)

UPC (EAN) CODE = Max. 13digits (EAN13, EAN8, UPC-A, UPC-E)

(CHARACTERS): CHARACTER (Max. 16 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.
THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY→ [00] KEY

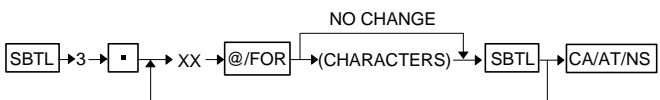
YYY: CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = PLUxxxx (xxxx: PLU code)

MRS (UPC) = ALL SPACE

13) PROGRAMMING OF FUNCTION TEXT



XX: FUNCTION CODE (Refer to the FUNCTION LIST)

(CHARACTERS): CHARACTER (Max. 8 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.
THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY: CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

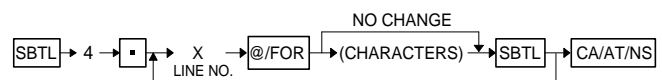
MRS = Refer to the following table

■ FUNCTION LIST

F-NO.	FUNCTION	DEFAULT 1 2 3 4 5 6 7 8
1	(-)	(-)
2	%1	%1
3	%2	%2
4	NET1	NET1
5	TAXABLE1 ST	TAX1 ST
6	GROSS TAX1	GRS TAX1
7	REFUND TAX1	RFD TAX1
8	NET TAX1	TAX1
9	EXEMPT TAX1	TX1 EXPT
10	TAXABLE2 ST	TAX2 ST
11	GROSS TAX2	GRS TAX2
12	REFUND TAX2	RFD TAX2
13	NET TAX2	TAX2
14	EXEMPT TAX2	TX2 EXPT
15	TAXABLE3 ST	TAX3 ST
16	GROSS TAX3	GRS TAX3
17	REFUND TAX3	RFD TAX3
18	NET TAX3	TAX3
19	EXEMPT TAX3	TX3 EXPT
20	TAXABLE4 ST	TAX4 ST
21	GROSS TAX4	GRS TAX4
22	REFUND TAX4	RFD TAX4
23	NET TAX4	TAX4
24	EXEMPT TAX4	TX4 EXPT
25	GROSS M-TAX	GRS MTAX
26	REFUND M-TAX	RFD MTAX
27	NET M-TAX	M-TAX
28	TOTAL TAX	TTL TAX
29	NET without TAX	NET
30	NET2	NET2
31	REFUND	REFUND
32	VOID	VOID
33	VOID MODE	VOID
34	MANAGER VOID	MGR VD
35	SBTL VOID	SBTL VD
36	NO SALE	NO SALE
37	RA	***RA
38	PO	***PO
39	CUSTOMER	TRANS CT
40	NET3 (SALES)	NET3
41	CASH	CASH
42	CHECK	CHECK
43	GROSS CHARGE1	CHARGE
44	REFUND CHARGE1	CHARGE -
45	GROSS CHARGE2	CHARGE2
46	REFUND CHARGE2	CHARGE2-
47	CONVERSION (PRESET RATE)	CONV 1
48	CONVERSION (OPEN RATE)	CONV 2
49	CASH IN DRAWER	****CID
50	CASH+CHECK IN DRAWER	CA+CH ID
51	CHECK CHANGE	CHK/CG
52	COMMISSION SALE1	COM. SAL1
53	COMMISSION SALE2	COM. SAL2
54	NON COMMISSION SALE	NON COM.
55	(+) DEPT TOTAL	*DEPT TL
56	(-) DEPT TOTAL	DEPT (-)

F-NO.	FUNCTION	DEFAULT 1 2 3 4 5 6 7 8
57	BOTTLE (+) DPST TOTAL	*BTTL TL
58	BOTTLE (-) DPST TOTAL	BTTL (-)
59	SUBTOTAL	SUBTOTAL
60	MDS SBTL	MDSE ST
61	TOTAL	***TOTAL
62	CHANGE	CHANGE
63	ITEMS	ITEMS
64	COMMISSION AMOUNT1	COM. AMT1
65	COMMISSION AMOUNT2	COM. AMT2
66	COMMISSION AMOUNT TOTAL	COM. TTL
67	DEPT. REPORT TITLE	DEPT
68	PLU/UPC REPORT TITLE	PLU/UPC
69	TRANS. REPORT TITLE	TRANS.
70	CLERK REPORT TITLE	CLERK
71	HOURLY REPORT TITLE	HOURLY
72	DAILY NET REPORT TITLE	DAILY
73	GROUP REPORT TITLE	GROUP
74	TL-ID REPORT TITLE	TL-ID
75	NON ADD CODE TEXT	#
76	COPY RECEIPT TITLE	COPY
77	GROUP1	G ROUP01
78	GROUP2	G ROUP02
79	GROUP3	G ROUP03
80	GROUP4	G ROUP04
81	GROUP5	G ROUP05
82	GROUP6	G ROUP06
83	GROUP7	G ROUP07
84	GROUP8	G ROUP08
85	GROUP9	G ROUP09
86	DUE (for DISPLAY)	DUE
87	TAX ST (for DISPLAY ALL TAX DEL.)	TAX ST

14) PROGRAMMING OF LOGO TEXT



X: LINE NO. (1 to 6)

(CHARACTERS): CHARACTER (Max. 24 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY : CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

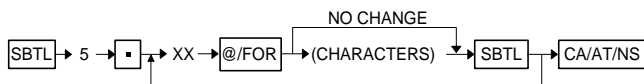
(Sample)

123456789012345678901234

MRS =

SHARP
PRESENTS THE
BEST ECR
SHARP
IS
THE BEST

15) PROGRAMMING OF CLERK NAME



XX: CLERK NO. (1 to 40)

(CHARACTERS): CHARACTER (Max. 8 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

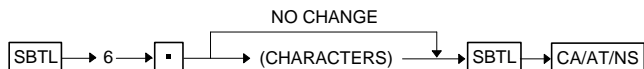
YYY → [00] KEY

YYY : CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = CLERKxx (xx: clerk no.)

16) FOREIGN CURRENCY SYMBOL PROGRAMMING



(CHARACTERS): CHARACTER (Max. 4 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY : CHARACTER CODE (3 DIGITS)

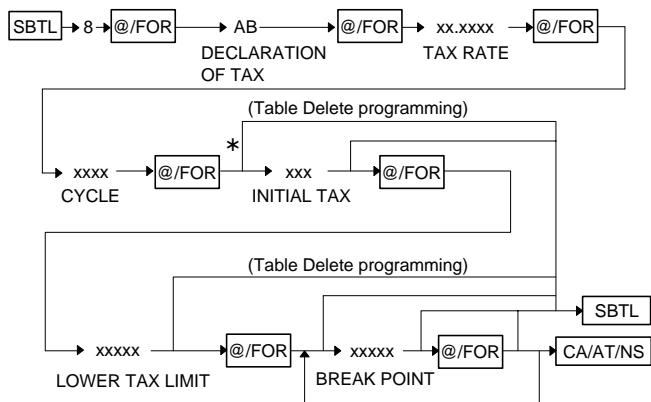
(or [000] KEY ACCORDING TO PGM PRESET)

MRS = ____ (_ : space code)

Note: This symbol is printed as the amount of CURRENCY CONVERSION for PRESET RATE only.

The amount symbol of CURRENCY CONVERSION for OPEN RATE is not printed.

17) TAX TABLE PROGRAMMING



72 BREAKPOINTS CAN BE PROGRAMMED FOR EACH TAXTABLE.
(Case of interval between break point is 1 dollar or more and less than 100 dollar, 36 breakpoints is programmed for each table.)

* DEPRESSION OF THE [SBTL] KEY AT THE FOLLOWING POINTS MEANS A TAX TABLE DELETE OPERATION.

A: INTERVAL BETWEEN BREAKPOINTS	A
BELOW 1 DOLLAR	0
1 DOLLAR OR MORE AND LESS THAN 100 DOLLAR	1

B: TAX TABLE No.	B
TABLE1	1
TABLE2	2
TABLE3	3
TABLE4	4

TAX RATE : 0.0001 to 99.9999

CYCLE : 1 to 9999

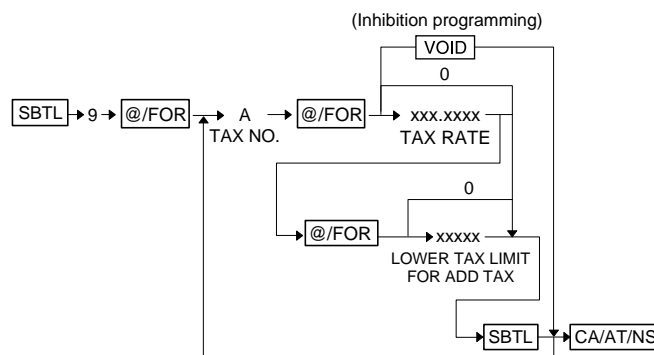
INITIAL TAX : 1 to 999

LOWER TAX LIMIT : 1 to 99999

BREAK POINT : 1 to 99999

MRS = NO TAX

18) TAX RATE PROGRAMMING



A : TAX 1 PROGRAMMING	1
TAX 2 PROGRAMMING	2
TAX 3 PROGRAMMING	3
TAX 4 PROGRAMMING	4

% TAX RATE

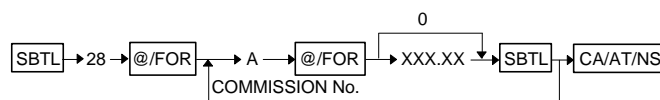
RATE xxx.xxxx = 0.0000 to 100.0000 %

LOWER TAX LIMITATION 0.00 to 999.99

(This is invalid in VAT system.)

MRS = DELETE

19) COMMISSION RATE PROGRAMMING



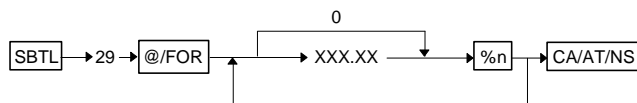
A : COMMISSION NO. (1 or 2)

XXX.XX : COMMISSION RATE (0.00 to 999.99)

The DECIMAL POINT must be entered for setting the decimal digits.

MRS = 0.00 (%)

20) RATE HALO PROGRAMMING FOR [%] KEY

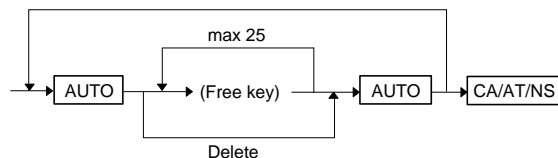


XXX.XX: % HALO (0.00 to 100.00)

The DECIMAL POINT must be entered for setting the decimal digits.

MRS = 100.00 (%)

21) [AUTO] KEY PROGRAMMING



The same [AUTO] key must be pushed as the programming [AUTO] key at the end of any key entry.

Note: [ESC] key cannot be set at [AUTO] key programming.
It acts as a key of ERROR ESCAPE function in this programming.

< [Auto] key function >

This machine has [AUTO] key which can be programmed for key-sequences data.
When [AUTO] key is depressed, the machine works as same as the programmed key-sequences is entered.

Executing mode : REG, MGR, OPXZ, X1/Z1, X2/Z2

Setting mode : PGM

22) DATE, TIME PROGRAMMING



DATE) XXXXXXXX: YYYYMMDD (Year - month - Day) or
DDMMYYYY (Day - month - Year) or
MMDDYYYY (Month - day - Year)
(YYYY: 2000 to 2099)
(MM : 01 to 12)
(DD : 01 to 31)

The date entry format complies with the applicable PGM-mode programming.

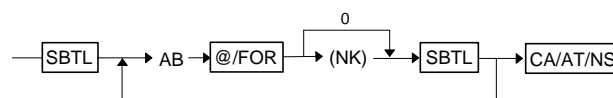
TIME) HH: Hour (00 to 23)
MM: Minute (00 to 59)

Note: Can not set the non-exist date (like Feb. - 30th)

MRS = DATE : 01012000 (DD/MM/YYYY)
TIME : 0000

23) VARIOUS PROGRAMMING (EACH FUNCTIONS PROGRAMMING)

Are programmed by depressing ST-key after desired data is set. It is operated continuously until depressing the TL-key
(Programming sequence)



AB : JOB No.

NK : PROGRAMMING DATA. (Numeric Keys)

[JOB#1] MACHINE No. (6digits) -- XXXXXX --

MRS = 000000

[JOB#2] CONSECUTIVE No. (4digits) -- XXXX --

MRS = 0000

[JOB#5] FUNCTION SELECT -- ABCDEFGH --

MRS = 00000001

A: PO in REG mode	A	
ENABLE	0	★
DISABLE	1	

B: RA in REG mode	B	
ENABLE	0	★
DISABLE	1	

C: SUBTOTAL VOID in REG mode	C	
ENABLE	0	★
DISABLE	1	

D: INDIRECT VOID in REG mode	D	
ENABLE	0	★
DISABLE	1	

E: DIRECT VOID in REG mode	E	
ENABLE	0	★
DISABLE	1	

F: REFUND in REG mode	F	
ENABLE	0	★
DISABLE	1	

G: NO SALE in REG mode	G	
ENABLE	0	★
DISABLE	1	

H: FRACTIONAL QUANTITY	H	
YES (3digits decimal place)	0	
NO	1	★

[JOB#6] PRINT FORMAT -- ABCDEFGH --

MRS = 00000011

A, B: Not used (Fixed at "00")

C: TIME PRINTING (for all receipt)	C	
PRINT	0	★
NOT PRINT	1	

D: DATE PRINTING (for all receipt)	D	
PRINT	0	★
NOT PRINT	1	

E: CONSECUTIVE NO. PRINTING	E	
PRINT	0	★
NOT PRINT	1	

F: Not used (Fixed at "0")

G: ZERO SKIP IN PLU/UPC REPORT	G	
NOT SKIP	0	
SKIP	1	★

H: ZERO SKIP IN GENERAL, CLERK, HOURLY, DAILY REPORT	H	
NOT SKIP	0	
SKIP	1	★

[JOB#7] RECEIPT PRINT FORMAT -- ABCDEFGH --

MRS = 00000000

A, B: Not used (Fixed at "00")

C: SUBTOTAL PRINT [AT] [ST] KEY	C	
NOT PRINT	0	★
PRINT	1	

D: MDSE SBTL PRINT AT [MDSE ST] KEY	D	
NOT PRINT	0	★
PRINT	1	

E, F, G: Not used (Fixed at "000")

H: PURCHASE NO. PRINTING	H	
PRINT	0	★
NOT PRINT	1	

[JOB#10] POWER SAVING -- YXXX --

MRS = 0030

Y: POWER SAVING function when a time is displayed	Y	
Yes (Enable)	0	★
No (Disable)	1	

XXX: POWER SAVING TIME to POWER OFF
 = 001 to 254 (minutes)
 or 999 (Inhibit)

[JOB#11] LOGO PRINTING -- A --

MRS = 1

A: LOGO MESSAGE CONTROL	A	
3-LINE HEADER INSTEAD OF GRAPHIC LOGO	0	
GRAPHIC LOGO ONLY	1	★
GRAPHIC LOGO AND 3-LINE FOOTER	2	
6-LINE HEADER	3	
GRAPHIC LOGO AND 3-LINE HEADER	4	
3-LINE HEADER AND 3-LINE FOOTER	5	

[JOB#15] FUNCTION SELECT 2 -- ABCDEFGH --

MRS = 000000000

A, B, C, D, E, F: Not used (Fixed at "000000")

G: TAX DELETE in REG mode	G	
ENABLE	0	★
DISABLE	1	

H: MANUAL TAX in REG mode	H	
ENABLE	0	★
DISABLE	1	

[JOB#16] UPC/EAN FUNCTION -- ABCDEFGH --

MRS = 00000000

A, B: Not used (Fixed at "00")

C: DEPT/PLU/UPC (EAN) code printing on journal	C	
NO	0	★
YES	1	

D: DEPT/PLU/UPC (EAN) code printing on receipt	D	
NO	0	★
YES	1	

E: LERNING FUNCTION of UPC (EAN) ENTRY	E	
YES	0	★
NO	1	

F: PRICE ENTRY after ISBN or ISSN	F	
COMPULSORY	0	★
INHIBITED	1	

G: PLU/UPC (EAN) PRICE LOOK UP AT REFUND ENTRY	G	
YES	0	★
NO	1	

H: C/D check of UPC (EAN)	H	
NO	0	★
YES	1	

[JOB#20] SENTINEL (CID HALO) -- XXXXXXXXXX --

MRS = 999999999

XXXXXXXXXX : SENTINEL AMOUNT (9 digits)

[JOB#35] ONLINE COMMUNICATION TIME OUT -- XXX --

MRS = 007

XXX: Time out time (1 to 255 sec)

Note: The device of ONLINE COMMUNICATION is USB Device only.

[JOB#50] THERMAL PRINTER DENSITY CONTROL -- XX --

MRS = 50

XX: density (00 to 99)

00 : 70 % for standard

50 : 100 % (Standard density)

99 : 130 % for standard

[JOB#61] OTHERS1 PROGRAMMING -- ABCDEFGH --

MRS = 00100002

A, B: Not used (Fixed at "00")

C:	Programming of MINUS dept/PLU/UPC	C	
	Disable	0	
	Enable	1	★
D:	Fractional treatment	D	
	Round off (4-DOWN, 5-UP)	0	★
	Raising to unit	1	
	Disregarding	2	
E:	[00] key or [000] key selection for [00] key position	E	
	[00] key	0	★
	[000] key	1	
F:	Time format	F	
	12hour	0	★
	24hour	1	
G:	Date format	G	
	M-D-Y	0	★
	D-M-Y	1	
	Y-M-D	2	
H:	TAB	H	
	0	0	
	1	1	
	2	2	★
	3	3	

[JOB#62] OTHERS2 PROGRAMMING -- ABCDEFGH --

MRS = 00000000

A: Not used (Fixed at "0")

B:	ERROR BEEP for misoperation	B	
	LOCK ERROR	0	★
	MISOPERATION	1	
C:	Key catch sound	C	
	Yes	0	★
	No	1	
D:	Buffered Keyboard	D	
	Yes	0	★
	No	1	
E:	VOID mode	E	
	Enable	0	★
	Disable	1	
F:	Printing of VOID MODE in Z2 report	F	
	Yes	0	★
	No	1	
G:	Printing of VOID MODE in Z1 report	G	
	Yes	0	★
	No	1	
H:	Addition to the hourly total in VOID MODE	H	
	No	0	★
	Yes	1	

[JOB#63] OTHERS3 PROGRAMMING -- ABCDEFGH --

MRS = 01000001

A:	Receipting at the time of NO SALE	A	
	Yes	0	★
	No	1	
B:	NO SALE after non-add code entry	B	
	Disable	0	
	Enable	1	★
C:	NON-ADD code entry	C	
	Enable	0	★
	Disable	1	
D:	Copy Receipt	D	
	No	0	★
	Yes	1	
E:	Entry that causes the merchandise SUBTOTAL to be smaller than zero.	E	
	Enable	0	★
	Disable	1	

F:	Subtotal entry before tendering	F	
	Noncompulsory	0	★
	Compulsory	1	

G:	Subtotal entry before direct non-tender finalization	G	
	Noncompulsory	0	★
	Compulsory	1	

H:	Direct non-tender finalization after tendering	H	
	Disable	0	
	Enable	1	★

[JOB#64] OTHERS4 PROGRAMMING -- ABCDEFGH --

MRS = 00000000

A:	Printing of GT1 on Z report	A	
	Yes	0	★
	No	1	

B:	Printing of GT2 on Z report	B	
	Yes	0	★
	No	1	

C:	Printing of GT3 on Z report	C	
	Yes	0	★
	No	1	

D:	Printing of Training GT on Z report	D	
	Yes	0	★
	No	1	

E:	Printing of Z counter on Z report	E	
	Yes	0	★
	No	1	

F:	Printing of DATA on PLU/UPC resetting report	F	
	Yes	0	★
	No	1	

G:	Reset GT1, 2, 3 at the general Z1 report	G	
	No	0	★
	Yes	1	

H:	OP X/Z report	H	
	Enable	0	★
	Disable	1	

[JOB#65] OTHERS 5 PROGRAMMING -- ABCDEFGH --

MRS = 00000000

A, B, C, D, E, F, G, H: Not used (Fixed at "00000000")

[JOB#66] OTHERS6 PROGRAMMING -- ABCDEFGH --

MRS = 10000000

A:	AFTER-TRANSACTION RECEIPT	A	
	TOTAL ONLY	0	
	DETAILS	1	★

B:	AMOUNT PRINTING WHEN PLU UNIT PRICE IS 0	B	
	No	0	★
	Yes	1	

C:	CONVERSION SBTL PRINTING OF NATIVE SBTL	C	
	Yes	0	★
	No	1	

D, E, F: Not used (Fixed at "000")

G:	Logo Text Print on Journal	G	
	No	0	★
	Yes	1	

H:	FOOTER PRINT CONTROL	H	
	ALL RECEIPTS	0	★
	ON SELECTED FUNCTION KEY AT THE TIME OF FINALIZATION	1	

[JOB#67] OTHERS 7 PROGRAMMING -- ABCDEFGH --

MRS = 00000000

A, B, C, D, E, F, G, H: Not used (Fixed at "00000000")

[JOB#68] OTHERS 8 PROGRAMMING -- ABCDEFGH --

MRS = 00000000

A, B, C, D, E, F, G, H: Not used (Fixed at "00000000")

[JOB#69] OTHERS 9 PROGRAMMING -- ABCDEFGH --

MRS = 00100000

A, B: Not used (Fixed at "00")

C:	ECR data copy BAUD RATE (BPS)	C	
	9600	0	
	19200	1	★

D, E: Not used (Fixed at "00")

F:	TAX PRINTING WHEN TAXABLE SUBTOTAL IS ZERO	F	
	No	0	★
	Yes	1	

G:	TAX PRINTING WHEN TAX IS ZERO	G	
	Yes	0	★
	No	1	

H: Not used (Fixed at "0")

[JOB#70] OTHERS 10 PROGRAMMING -- ABCDEFGH --

MRS = 00000000

A: SPLIT PRICING COUNTING	A	
QUANTITY	0	★
PACKAGE	1	

B: MULTIPLICATION ENTRY SYSTEM	B	
MULTIPLICATION ONLY	0	★
SPLIT PRICING & MULTIPLICATION	1	

C, D, E, F, G, H: Not used (Fixed at "000000")

[JOB#71] GT2 PROGRAMMING -- XXXXXXXXXXXX --

MRS = 00000000000000

XXXXXXXXXXXX : GT (13digits)

[JOB#72] GT3 PROGRAMMING -- XXXXXXXXXXXX --

MRS = 00000000000000

XXXXXXXXXXXX : GT (13digits)

[JOB#76] GENERAL Z1 RESET REPORT COUNTER -- XXXX --

MRS = 0000

XXXX : RESET COUNTER (4digits)

[JOB#77] GENERAL Z2 RESET REPORT COUNTER -- XXXX --

MRS = 0000

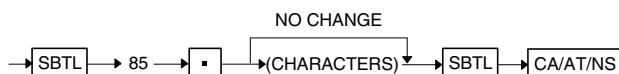
XXXX : RESET COUNTER (4digits)

[JOB#86] TRAINING CLERK PROGRAMMING -- XX --

MRS = 00

X : CLERK No. = 0 (INHIBIT), 1 to 40

24) DOMESTIC CURRENCY SYMBOL PROGRAMMING



(CHARACTERS): CHARACTER (Max. 4 Characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY : CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = __\$ (_ : space code)

This symbol is printed with (+) amount of domestic currency.

The programmed characters is printed at left side of amount.

Ex) Case of " US\$ ":

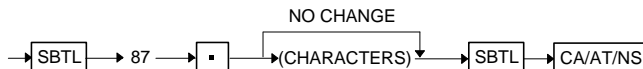
| DEPT.01 US\$1.00 |
 ↑
 Programmed symbol

If some space characters are programmed at the left side of symbol (like " \$"), they are not counted as the number of character of the currency symbol. (In case of " US\$", the number of character is 3.)

Ex) Case of " US\$": (The currency symbol means "US\$")

|AAAADEPARTMENT01 US\$10000.00 |
 ↑
 Programmed symbol

25) TRAINING MODE TEXT PROGRAMMING



(CHARACTERS): CHARACTER (Max. 8 characters)

Characters can be entered by using the character layout on keyboard or using numeric keys on keyboard.

THE KEY ENTRY SEQUENCE FOR ENTERING ONE CHARACTER BY NUMERIC KEYS IS AS FOLLOWS:

YYY → [00] KEY

YYY : CHARACTER CODE (3 DIGITS)

(or [000] KEY ACCORDING TO PGM PRESET)

MRS = TRAINING

26) TEXT CHANGING (TO DEFAULT TEXT)



X: 0 = English text

3 = Spanish text

MRS = 0

When this job is executed, below texts are set as default data.

(a) Function text

(b) Each message text (LOGO, etc..)

HEADER		
11/01/2003 12:34PM	01	DATE/TIME/CLERK NO
123456#1234	BETTY	MACHINE NO. /CC-NO. /CLERK NAME
PGM		MODE TITLE
#88	0	LANGUAGE MODE

27) RESETING OF ALL COUNTER AND TOTALIZER



All counter, totalizer, all GTs, and all Z counter are reset.

HEADER		
11/01/2003 12:34PM	01	DATE/TIME/CLERK NO
123456#1234	BETTY	MACHINE NO. /CC-NO. /CLERK NAME
PGM		MODE TITLE
#89		JOB#

28) MAXIMUM NUMBER OF DEPARTMENT



XX : Max Number of DEPARTMENT (01 to 99)

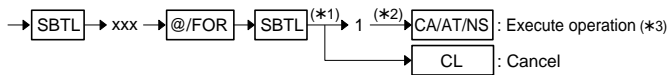
This job is used for the limitation of below functions.

- (1) Programming for the department code over the maximum number of department.
- (2) Registration for the department code over the maximum number of department.
- (3) Registration for the PLU that is associated to department over the maximum number of department.
- (4) Printing for the department data over the maximum number of department at PGM READING and XZ REPORTS.

MRS = 99

29) SD CARD FUNCTION

[Key Sequence of SD Jobs]



xxx : JOB code

- 140 : Format SD CARD
- 141 : Save Programming Data (ECR → SD)
- 144 : Save All RAM Data (ECR → SD)
- 145 : Load Graphic Logo Data (ECR ← SD)
- 147 : Load Programming Data (ECR ← SD)
- 148 : Load All RAM Data (ECR ← SD)

(*1) When [SBTL] key is pushed, ECR prints the confirmation message at "RECEIPT" (not print at JOURNAL) and enforces to select either executing or canceling this job. The buffered keys are cleared.

(*2) "1" is a keyword to execute this job.

(*3) If the MODE SWITCH is turned to another mode from PGM position or the AC POWER is off when job is executed, the job is cancelled.

Note: If AC POWER is off when ECR accesses SD CARD, the contents in SD CARD may be damaged

The action of each job is as below.

[JOB#140] Format SD CARD

This job formats SD card. (It deletes all data on SD card.)

After formatting card, the folder \SHARP\ECRXXX01 is made to a root directory.

And then, \ALL, \PROGRAM, \SALES, \EJPRINT, \EJ and \LOGO are made to a folder "\SHARP\ECRXXX01".

The file "SRECORD.REC" is made to both folder "\SHARP\ECRXXX01\SALES" and "\SHARP\ECRXXX01\EJ" and it is set the default data.

Notes: • All the data currently written in SD card is erased.

- The file "SRECORD.REC" is used for control structure under each folder. Any users does not need to concern its contents.

[JOB#141] Programming data saved to SD CARD

[JOB#147] Programming data loaded from SD CARD

The below data is saved or loaded.

Files are set in the folder for "Programming Data".

		File Name	File/Table No. (*1)	Field (*1)
1	Date and Time	mtimtbl	D0	
2	Others Programming	mopttbl	D1	
3	Tax Table and Rate	mtaxtbl	D7	
4	Logo message	mlgxtbl	D2	
5	Function programming	FuncText	A4	
		Mfuncttbl	D8	
6	Department	deptdata	01	B000 (Label, Preset, Price, Text)
7	PLU/UPC	pludata	11	B000 (Label, Preset, Price, Text)
8	Clerk	CsrData	51	1000 (Label, Text)

(*1) The contents of each file are same as the communication data of "ONLINE FUNCTION". Details of "File No." and "Table No." are described in "ONLINE SPECIFICATION". All data are converted to use with "Customer Support Tool" software on PC.

Notes: • If the folder for "Programming Data" does not exist in SD memory card, this job is inhibited. [FILE ACCESS ERROR] (The SD memory card is not formatted by ECR.)

• If there is data of the same file name, the message of confirmation does not display.

Data is overwritten if there is data of the same file name.

• Files are used only for the "Customer Support Tool" software on PC. Any users does not need to concern its contents.

[JOB#145] Graphic logo data loading

The below data is loaded. Files are set in the folder for "LOGO Data".

		File Name	File/Table No. (*1)	Field (*1)
1	Graphic LOGO	LOGO	E0	

(*1) The contents of each file are same as the communication data of "ONLINE FUNCTION". Details of "File No." and "Table No." are described in "ONLINE SPECIFICATION". All data are converted to use at "Customer Support Tool" software on PC.

Note: Files are created only for the "Customer Support Tool" software on PC. Any users does not need to concern its contents.

[JOB#144] All Data Saving

[JOB#148] All Data Loading

Notes: • In case of "DATA SAVING", the message of confirmation for overwritten the file on SD Card does not display. Data is overwritten if there is data of the same file name.

• In case of "DATA LOADING", the condition of ECR will return to past condition. However, the message of confirmation for overwritten does not display.

The below data is saved or loaded. Files are set in the folder for "ALL RAM BACKUP".

		File Name
1	All RAM data	All

Note: Files are used only for the purpose of DATA BACKUP at ECR. Any users does not need to concern its contents.

■ DISPLAY AND PRINT:

Key	OPERATION	Print	NOTE
	1234567890123456	123456789012345678901234	
[#/TM/STBL]	PGM 0		
141 [@/FOR]	PGM 141		Numeric entry
[#/TM/SBTL]	ARE YOU EXECUTE? 0	(PRE-PRINT HEADER) !!!!!!!!!!!!!!!!!!!!!! YOU SELECT SD CARD JOB [1]-[CA/AT]KEY : EXECUTE [CL]-KEY : CANCEL !!!!!!!!!!!!!!!!!!!!!! Don't turn the mode key while executing a job. !!!!!!!!!!!!!!!!!!!!!! (Issuing Receipt)	The buffered keys are cleared and the message is printed on "receipt" only. MESSAGE : MAX 8-lines (The message is fixed in ROM.) (Not count up CC# at this time.)
[1]	ARE YOU EXECUTE? 1		
[CA/AT/NS]	ACCESSING CARD ■	(HEADER) 05/02/2006 12:34PM 01 123456#1234 BETTY____ *PGM* #141	(Count up CC#.) DISPLAY : ■ : Blinking while executing job. PRINT : JOB HEADER is printed. And job code is printed. (Job code is printed only at SD jobs)
(SD ACCESS)			DISPLAY : ■ : Blinking while executing job. PRINT : (NON)
Case of NORMAL END	PGM 0. 00	SD FINAL (Issuing Receipt)	DISPLAY : Initial Display PRINT : STATUS is printed (The message is fixed in ROM.)
Case of ERROR END (No Card)	NO CARD PGM 0. 00	NO CARD (Issuing Receipt)	DISPLAY : ERROR MESSAGE (Refer to list of "ERROR MESSAGE") PRINT : ERROR MESSAGE (The message is fixed in ROM.)
Case of ERROR END (ACCESS ERROR)		ACCESS ERROR (Issuing Receipt)	ERROR MESSAGE (Refer to list of "ERROR MESSAGE") (The message is fixed in ROM)
Case of CHANGING MODE KEY (To cancel)		SD CANCEL (Issuing Receipt)	PRINT : SD CANCEL MESSAGE (The message is fixed in ROM.)
Case of POWER OFF	POWER OFF PGM 0. 00	POWER OFF ERROR AT THE DEVICE CONTROL SET DATA&TIME AGAIN (Issuing Receipt)	DISPLAY : ERROR MESSAGE (Refer to list of "ERROR MESSAGE") PRINT : MESSAGE of POWER OFF (The message is fixed in ROM.)

The messages are printed on both RECEIPT and JOURNAL.

4. CHARACTER ASSIGNMENT METHOD

■ PROGRAMMING KEY LAYOUT

[XE-A404]

↑ RECEIPT	↑ JOURNAL	@/FOR	.	CL	PLU /SUB	DEPT #	DEPT SHIFT	CLK# /CONV	INQ U	AUTO X
RA /AMT _I	%1 /	7	8	9	25 5 A	30 10 F	35 15 K	40 20 P	TAX1 SHIFT _V	TAX2 SHIFT _Y
RCPT /PO ₋	%2 NUMBER	4	5	6	24 4 B	29 9 G	34 14 L	39 19 Q	TAX _W	CH1 _Z
VOID DC	RFND SHIFT	1	2	3	23 3 C	28 8 H	33 13 M	38 18 R	CHK	CH2
ESC BS	⊖ SPACE	0	00		22 2 D	27 7 I	32 12 N	37 17 S	MDSE SBTL	#/TM SBTL
					21 1 E	26 6 J	31 11 O	36 16 T	CA/AT/NS	

[XE-A505]

↑ RECEIPT	↑ JOURNAL	@/FOR	.	CL	PLU /UPC	DEPT #	DEPT SHIFT	CLK# /CONV	INQ U	AUTO X
RA /AMT _I	%1 /	7	8	9	25 5 A	30 10 F	35 15 K	40 20 P	TAX1 SHIFT _V	TAX2 SHIFT _Y
RCPT /PO ₋	%2 NUMBER	4	5	6	24 4 B	29 9 G	34 14 L	39 19 Q	TAX _W	CH1 _Z
VOID DC	RFND SHIFT	1	2	3	23 3 C	28 8 H	33 13 M	38 18 R	CHK	CH2
ESC BS	⊖ SPACE	0	00		22 2 D	27 7 I	32 12 N	37 17 S	MDSE SBTL	#/TM SBTL
					21 1 E	26 6 J	31 11 O	36 16 T	CA/AT/NS	

Note: The small characters on the bottom or lower right in each key indications or characters which can be used for character entries for text programming.

■ THE METHOD OF CHARACTER ENTRY AT TEXT PROGRAMMING

The character can be entered by using character key or character code.

When the character can be entered in the text programming, the key layout is changed from "Function and [DEPT] key layout" to "CHARACTER KEY LAYOUT".

In "CHARACTER KEY LAYOUT", any key except the Numeric keys and [CL], [# /TM /SBTL], [CA /AT /NS] are assigned either the character or the control key for character entry.

Any character can be entered by following method.

By character key:

- [SHIFT] — (CHARACTER KEY) — : Characters on Character key layout.
- [NUMBER] — (NUMERIC KEY) — : Numeric character ("0", "1", . . . , "9")

By Numeric key (Character Code) :

— xxx — [00] —

xxx : Character Code

(The list of Control Key)

Key	Action
SHIFT	Entry to shift the following character key. (ex. [SHIFT] → [A] : Enter the character "a".)
NUMBER	Entry the following numeric key as the number character. (ex. [NUMBER] → [1] : Enter the character "1".)
(DC)	Double size character: Change the following character to the double size character.
BS	Back Space : Delete the last character.

The status of [SHIFT], [NUMBER] and [DC] are kept until pushing same control key in each text entry. (STAY DOWN type)

The corresponding indication lights up on the display while their status is "on".

(Example)

[SHIFT] → [A] [B] [C] → [SHIFT] → [A] [B] [C] : Text "abcABC".

[NUMBER] → [1] [2] [3] → [NUMBER] → [1] [2] [3] : Text "123" and numeric number 123.

[DC] → [A] [B] [C] → [(DC)] → [A] [B] [C] : Text "**ABC**ABC".

<Character Code Table for text programming> Printer

CODE	CHARACTER	CODE	CHARACTER	CODE	CHARACTER	CODE	CHARACTER	CODE	CHARACTER
001	á	049	1	098	b	147	ù	196	Ç
002	â	050	2	099	c	148	à	197	ğ
003	ê	051	3	100	d	149	Æ	198	Қ
004	î	052	4	101	e	150	φ	199	қ
005	ì	053	5	102	f	151	Å	200	Ľ
006	í	054	6	103	g	152	⌘	201	Į
007	ô	055	7	104	h	153	é	202	Ž
008	ó	056	8	105	i	154	è	203	Ð
009	û	057	9	106	j	155	Ɔ	204	đ
010	ú	058	:	107	k	156	ı	205	Ć
011	œ	059	;	108	l	157	Ñ	206	ć
012	Û	060	<	109	m	158	Õ	207	€
013	ú	061	=	110	n	159	£	208	Ɔ
014	ö	062	>	111	o	160	¥	209	`
015	ó	063	?	112	p	161	◦	210	ě
016	Λ	064	@	113	q	162	Г	211	š
017	Ψ	065	A	114	r	163	Ј	212	č
018	Γ	066	B	115	s	164	、	213	ž
019	..	067	C	116	t	165	.	214	ý
020	Ω	068	D	117	u	166	T ₁	215	ù
021	Δ	069	E	118	v	167	T ₂	216	ň
022	Θ	070	F	119	w	168	T ₃	217	ˇ
023	Ξ	071	G	120	x	169	T ₄	218	‘
024	Π	072	H	121	y	170	1 ₂	219	ř
025	Σ	073	I	122	z	171	1 ₃	220	
026	Υ	074	J	123	{	172	1 ₄	221	
027	Φ	075	K	124	|	173	2 ₃	222	
028	Ů	076	L	125	}	174	2 ₄	223	
029	Ú	077	M	126	ß	175	3 ₄	224	*
030	Ö	078	N	127	ç	176	日	225	§
031	Ó	079	O	128	!!	177	Á	226	Ø
032	(Space)	080	P	129	1	178	Í	227	^
033	!	081	Q	130	2	179		228	↑
034	"	082	R	131	3	180	Ā	229]
035	#	083	S	132	4	181	ā	230	[
036	\$	084	T	133	1/2	182	Ē	231	“
037	%	085	U	134	F _T	183	ē	232	ä
038	&	086	V	135	←	184	ī	233	ö
039	'	087	W	136	→	185	î	234	ü
040	(	088	X	137	∞	186	ū	235	æ
041	)	089	Y	138	∞	187	ū	236	â
042	*	090	Z	139	►	188	Ŋ	237	É
043	+	091	Ä	140	◄	189	ŋ	238	ñ
044	,	092	Ö	141	F	190	Č		
045	–	093	Ü	142	T	191	Š		
046	.	094	^	143	↓	192	ç		
047	/	095	_	144	ç	193	İ		
048	0	096	`	145	◦	194	Ğ		
		097	a	146	ı	195	Ş	253	(DC)

Note: The character of this table is for reference. Please see actual display.

(DC) : Double Code

: ECR Control Character (Not used for text)

CHAPTER 3. OP X/Z, X1/Z1, X2/Z2 MODE

In general, the following sales reports are available:

- 1) OP X/Z reports (Individual cashier reports)
- 2) X1/Z1 reports (Daily total X and Z reports)
- 3) X2/Z2 reports (Periodic total X and Z reports)
- 4) Flash-read reports (Display sales amount)

In addition to the above reports there are reports for program checking available.

[Purpose]

The reports are each used to check sales data. The standard purposes of taking these reports are as follows:

OP X/Z reports : These reports are taken by operators in order to report their own sales data.

X1/Z1 reports : These reports are taken by the supervisor or manager in order to check and report daily sales totals at that point.

X2/Z2 reports : These reports are taken by the owner or manager in order to check and report periodic (weekly or monthly) totals.

Flash-read : These reports are taken by the owner or manager in order to check and display sales totals at that point.

[Operation]

In the table below those reports marked with a circle "O" can be executed.

PRINTING REPORT

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	
		OPX/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1	X2	Z2		
GENERAL	[CA/AT/NS]	-	-	O	O	O	O		*1
DEPARTMENT	[DEPT#]	-	-	O	-	O	-		
DEPT IND. GROUP	NK→[@/FOR]→[DEPT#]	-	-	O	-	O	-	GROUP NO.	
DEPT GROUP TOTAL	[0]→[@/FOR]→[DEPT#]	-	-	O	-	O	-		
PLU/UPC BY RANGE	[PLU/UPC]	-	-	O	O	O	O	PLU/UPC CODE	*1, *2
PLU/UPC BY DEPT	NK→ [DEPT SHIFT]→[PLU/UPC]	-	-	O	-	O	-	DEPT. CODE	
TRANSACTION	[1]→[CA/AT/NS]	-	-	O	-	O	-		
TL-ID	[2]→[CA/AT/NS]	-	-	O	-	O	-		
CLERK (ALL)	[CLK#/CONV]	-	-	O	O	O	O		*1
CLERK (INDIVIDUAL)	[CLK#/CONV]	O	O	-	-	-	-		*1, *3
HOURLY (ALL)	[#/TM/SBTL]	-	-	O	O	-	-		*1
HOURLY (RANGE)	[#/TM/SBTL]	-	-	O	-	-	-	TIME (HOUR)	*1, *5
DAILY NET	[#/TM/SBTL]	-	-	-	-	O	O		*1

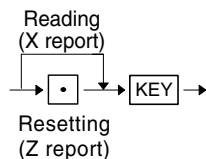
FLASH READING REPORT

REPORT NAME	KEY ENTRY	MODE						DATA FOR READING	
		OPX/Z		X1/Z1		X2/Z2			
		X	Z	X1	Z1	X2	Z2		
DEPARTMENT	[DPTn] or [DEPT SHIFT]→ [DPTn] or NK→[DEPT#]	O	-	-	-	-	-	DEPT CODE	*4
CID	[@/FOR]	O	-	-	-	-	-		*4
SALES TOTAL	[CA/AT/NS]	O	-	-	-	-	-		*4

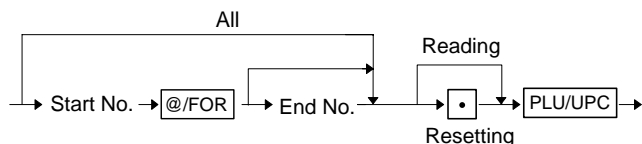
MODE: X : Daily operator X report Z : Daily operator Z report
X1 : Daily X report Z1 : Daily Z report
X2 : Periodic X report Z2 : Periodic Z report
(X report): The corresponding data is held in the ECR.
(Z report): The corresponding data is cleared in the ECR.

- Stop printing of reports (Report cancel function):
This ECR has the function of report stopping for PLU/UPC report.
- Printing of GT on X reports:
This ECR dose not print any GT on X reports.

*1 To read respective reports, it is necessary to follow the procedure below.



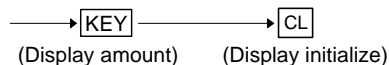
*2 PLU/UPC code range can be specified by entering the start and end numbers according to the following procedure.
When specifying a single PLU/UPC code, the start number has only to be entered.



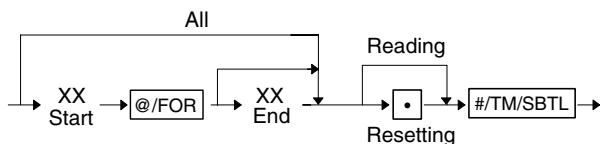
(START No.) and (END No.) : PLU (4digit)
UPC (FAN) CODE (13digit)

*3 To read respective reports, it is necessary to follow the procedure below. The clerk code does not need to enter at the OPX/Z mode. In OPX/Z mode, it is issued the report of the assigned clerk.

*4 Reading display only.
The displayed amount can be cleared by [CL] key.



*5 Hourly range can be specified by entering the start and end hour according to the following procedure.
When specifying a single hour, the start hour has only to be entered.



[Action]

Individual counters for the following Z reports are incremented when those reports are printed.

- 1) General daily total report (Z1)
- 2) General periodic total report (Z2)

[Additional function]

(1) Overflow mark

If the amount or quantity in any totalizer other than GT to be printed on X or Z reports exceeds a programmed limit, the indication mark (overflow mark) is printed for the totalizer concerned.

The overflow mark may be printed even if a totalizer does not reach the maximum amount. This occurs, for example, when the amount or quantity in the totalizer gets smaller than the maximum amount due to the entry of a negative amount after the overflowing of the totalizer. This means that when the totalizer overflows once, the overflow mark (for example, "!!") is printed.

(2) MODE TITLE

Each report prints MODE TITLE at a header of report.
The Report Titles are as follows.

OPX report	*OPX*
OPZ report	*OPZ*
X1 report	*X1*
Z1 report	*Z1*
X2 report	*X2*
Z2 report	*Z2*

(3) Report cancel function

Reports are cancelled by turned the mode switch to MGR position while the data is printed. (In this case, the contents of memory are not cleared.)

<Print sample of Report cancel>

```

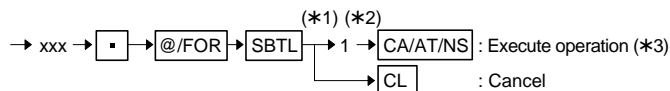
      :
      :
*  *  *  *  *  *  ← the report cancel symbol
123456789012345678901234
  
```

Samples of respective reports are shown on the following pages.

SD CARD FUNCTION

[Key Sequence of SD Jobs]

[X1/Z1 Mode]



xxx: JOB code

650: Save Sales Data (ECR → SD)

(*1) When [SBTL]-key is pushed, ECR prints the confirmation message at "RECEIPT" (not print at JOURNAL) and enforces to select either executing or cancelling this job. The buffered keys are cleared.

(*2) "1" is a keyword to execute this job.

(*3) If the MODE SWITCH is turned to another mode from X1Z1 position or the AC POWER is off when job is executed, the job is cancelled.

Note: If AC POWER is off when ECR accesses SD CARD, the contents in SD CARD may be damaged.

The action of each job is as below.

[JOB#650] Sales data saving

All sales data (Daily and term) save in SD card.

This job is used for the purpose of using Electric Journal Data at the "Customer Support Tool" software on PC. Maximum 400 times data is kept in SD Card when the SD memory is not full.

The action is as below.

Step1) After reading the information of the current sub-folder in "SRECORD.REC" file, ECR creates the new sub-folder under the folder for "Sales Data".
Its folder is named ASCII Character that is indicated the number of sales data in SD Card. (Example: "1", "2", "3",.....)

Step2) Save the below data in new sub-folder that is created above step.

		File Name	File/Table No. (*1)	Field (*1)
1	Date and Time (when a job is operated)	mtimtbl	D0	
2	Department Sales	Dept	01	All fields
3	Transaction Sales	Trans	21	All fields
		FuncText	A4	
4	Hourly Sales	Hourly	61	All fields
5	Daily Net Sales	DailyNet	71	All fields
6	Clerk Sales	CsrData	51	All fields
		CsrSal	52	All fields
7	PLU/UPC Sales	Plu	11	All fields, All range

Spet 3) Create the "STATUS.REC" file in new sub-folder when all files are saved completely.

		File Name
1	Status information	STATUS. REC

Step 4) Update the "SRECORD.REC" file for changing the structure of sub-folder.

		File Name
1	Record structure	SRECORD. REC

(*1) The contents of each file are same as the communication data of "ONLINE FUNCTION". Details of "File No." and "Table No." are described in "ONLINE SPECIFICATION". All data are converted to use at "Customer Support Tool" software on PC.

Note: Files are used only for the "Customer Support Tool" software on PC. Any users does not need to concern its contents.

■ DISPLAY AND PRINT: X1/Z1 MODE)

JOB ENTRY OPERATION: (Common action for all Jobs)

Key	Display	Print	NOTE
	1234567890123456	123456789012345678901234	
650 [.] [@/FOR]	X1Z1 650		Numeric entry
[#/TM/SBTL]	ARE YOU EXECUTE? 0	(PRE-PRINT HEADER) !!!!!!!!!!!!!!!!!!!!!!!!!!!! YOU SELECT SD CARD JOB [1]-[CA/AT]KEY : EXECUTE [CL]-KEY : CANCEL !!!!!!!!!!!!!!!!!!!!!!!!!!!! Don't turn the mode key while executing a job. !!!!!!!!!!!!!!!!!!!!!!!!!!!! (Issuing Receipt)	The buffered keys are cleared and the message is printed on "receipt" only. MESSAGE : MAX 8-lines (The message is fixed in ROM.) (Not count up CC# at this time.)
[1]	ARE YOU EXECUTR? 1		
[CA/AT/NS]		(HEADER) 05/02/2006 12:34PM 01 123456#1234 BETTY____ *Z1* #650	PRINT : (Count up CC#.) JOB HEADER is printed. And job code is printed. (Job code is printed only at SD jobs)
(SD ACCESS)	ACCESSING CARD ■		PRINT : (NON) DISPLAY : ■ :Blinking
Case of NORMAL END	X1Z1 0.00	SD FINAL (Issuing Receipt)	PRINT : STATUS is printed (The message is fixed in ROM.) DISPLAY : Initial Display
Case of ERROR END (NO CARD)	NO CARD X1Z1 0.00	NO CARD (Issuing Receipt)	ERROR MESSAGE (Refer to list of "ERROR MESSAGE") (The message is fixed in ROM.)
Case of ERROR END (ACCESS ERROR)		ACCESS ERROR (Issuing Receipt)	ERROR MESSAGE (Refer to list of "ERROR MESSAGE") (The message is fixed in ROM.)
Case of CHANGING MODE KEY (to cancel)		SD CANCEL (Issuing Receipt)	PRINT : SD CANCEL MESSAGE (The message is fixed in ROM.)
Case of POWER OFF	POWER OFF X1Z1 0.00	POWER OFF ERROR AT THE DEVICE CONTROL SET DATA&TIME AGAIN (Issuing Receipt)	PRINT : MESSAGE of POWER OFF (The message is fixed in ROM.)

The messages are printed on both RECEIPT and JOURNAL.

[ERROR CODE LIST]

No.	Description	MESSAGE (12Characters)	DISPLAY	PRINT
01	SD card is not find	NO CARD	O	O
02	SD CARD PROTECT SWITCH is set "PROTECED"	CARD PROTECT	O	O
03	SD CARD WRITTING ERROR (Memory is full) (ECR cannot write the data on SD card.)	CARD FULL	O	O
04	SD CARD ACCESS ERROR (File is nothing)	ACCESS ERROR	O	O
05	SD CARD ACCESS ERROR (File data is failed) (ECR cannot read the data on SD card.)	FILE FAILED	O	O
:	<<< Reserved >>>			
10	Over limitation of data records (Over max record in sales or EJ data.)	OVER LIMIT.	O	O
:	<<< Reserved >>>			
99	SD CARD ERROR (Anyhow error except above SD ERROR is occurred when ECR accesses SD Card.)	SD ERROR	O	O
xx	Power off is occurred at SD card job	POWER OFF	O	-
xx	Operation is canceled	SD CANCEL	O	O

Note: Column of DISPLAY/PRINT : "O" : Used, "-" : Not used.

SHARP

COPYRIGHT © 2006 BY SHARP CORPORATION

All rights reserved.

Printed in Japan.

No part of this publication may be reproduced,
stored in a retrieval system, or transmitted.

In any form or by any means,
electronic, mechanical, photocopying, recording, or otherwise,
without prior written permission of the publisher.

SHARP CORPORATION
Information and Communication Systems Group
Quality Assurance Department
Yamatokoriyama, Nara 639-1186, Japan

2006 July Printed in Japan ⓘ